

Name(s) of Risk Team Members: Edward Lessard			Point Value → Parameter ↓		1		2		3		4		5			
Area/Facility Description Title: Collider-Accelerator Department			Occupancy or Use		≤once/year		≤once/month		≤once/week		≤once/shift		≥once/shift			
Area/Facility # (if applicable): Facility Wide – FRA 2-06			Severity		First Aid Only		Medical Treatment		Lost Time		Partial Disability		Death or Permanent Disability			
			Likelihood		Extremely Unlikely		Unlikely		Possible		Probable		Multiple			
Approved by: <i>E. Lessard</i>			Date: May 5, 2006		Rev.#: 0											
Reason for Revision (if applicable):									Comments: Occupancy/Use in this case is continuous (5) since the potential for fire is continuously present, and operations are around-the-clock.							
					Before Additional Controls							After Additional Controls				
Physical Item or Activity		Hazard(s)	Control(s)	Use A	Severity B	Likelihood C	Risk* AxBxC	Control(s) Added to Reduce Risk				Occupancy A	Severity B	Likelihood C	Risk* AxBxC	% Risk Reduction
Electrical Fire		Smoke And Heat	Fire detection & suppression systems; equipment protective systems; ASSRC/ESRC reviews; Fire Hazards Analysis; Fire stops; all equipment is listed or reviewed by CEE; Tier 1 inspections; maintenance; electrical & life safety code compliance; emergency procedures; EMTs & BNL fire rescue; removal of unused cable; ASE requirements; audible alarms; evacuation procedures and training; upgrading fire alarm panels (ongoing); replacement of faulty Edwards’s 281A heat detectors (2005); replacement of front-end site-wide fire alarm system that allows more monitoring ability (2005)	5	2	4	40	Encourage the Laboratory to provide a real commitment about fire alarm/detection upgrades. This action is based on Management Review of 9/14/2005.				5	2	3	30	25 %
Flammable Liquid Fire		Smoke And Heat	Fire detection & suppression systems; procedures; training; chemical segregation; volume controls; fire cabinets; MSDS; Tier 1 inspections; storage controls; ventilation; labeling; ignition source control	5	2	2	20									
Flammable/Explosive Gas Fire		Smoke And Heat	Fire detection & suppression systems; procedures; training; equipment protective systems; ASSRC/ESRC reviews; Fire Hazards Analysis; Tier 1 inspections; maintenance; emergency procedures; BNL Fire Rescue; ASE requirements; volume controls; segregation controls; labeling; area posting; gas detection interlock systems; Class I Division II explosion-proof equipment where appropriate	5	5	1	25									
Combustible Material Fire		Smoke And Heat	Fire detection & suppression systems; procedures; training; equipment protective systems; C-AD housekeeping policy; all equipment is listed or reviewed by CEE; Tier 1 inspections	5	2	2	20									
Chemical Fire		Smoke And Heat	Fire detection & suppression systems; procedures; training; equipment protective systems; all equipment is listed or reviewed by CEE; C-AD housekeeping policy; Tier 1 inspections, Fire Hazards Analysis	5	2	3	30									
Dry Vegetation Fire		Smoke And Heat	Fire breaks; maintenance of fire breaks; procedures; training; BNL site-wide warning alarm system; Fire Hazards Analysis; Tier 1 inspections; Emergency procedures; BNL Fire Rescue	5	1	2	10									
Natural Phenomenon		Lightning And Subsequent Fire	Fire Hazards Analysis for lighting risk, lightning protection where required	5	1	2	10									
Radiation Energy Deposition (Targets) - Fire		Smoke And Heat	Fire detection & suppression systems; procedures; training; equipment protective systems; ASSRC/ESRC/RSC reviews; Fire Hazards Analysis; emergency procedures; BNL Fire Rescue; ASE requirements; access control system; cooling water systems; target-temperature monitoring; radiation monitoring	1	1	2	2									
Further Description of Controls Added to Reduce Risk:																
*Risk:		0 to 20		21 to 40			41-60			61 to 80			81 or greater			
		Negligible		Acceptable			Moderate			Substantial			Intolerable			